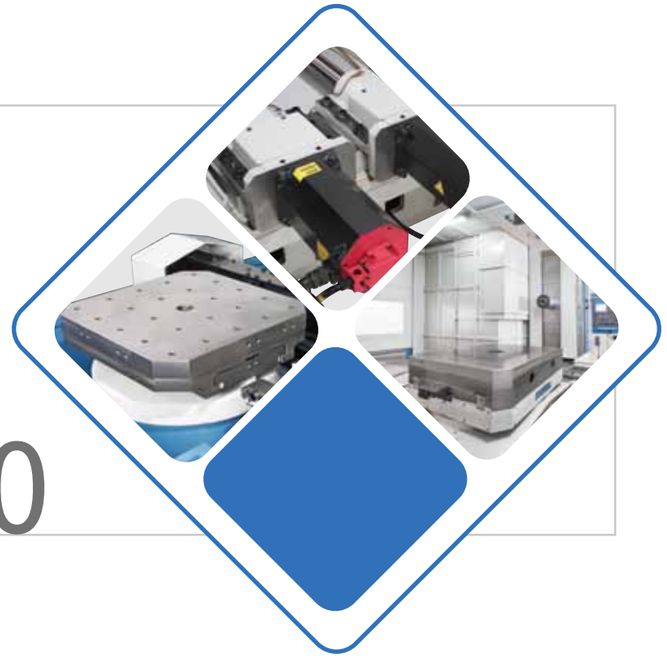
MCH-630

MCV-720

HORIZONTAL MACHINING CENTER

MCV-1020A

MCH-1250



MCV-1020BA

MCV-1200

MCV-1250

MCV-1450

MCV-1700

MCV-2100

MCV-2600

DCM-2213

The Latest and Best Quality Machinery.

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Extra Large Machining Capacity!

A New Standard in Machining Efficiency and Accuracy !

MCH-1250

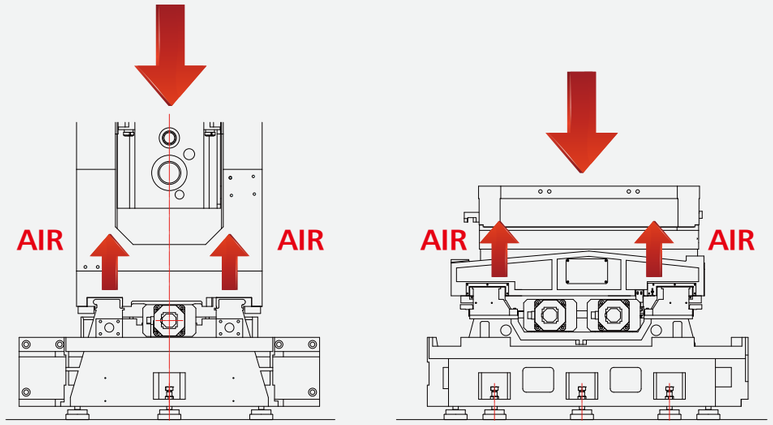
HORIZONTAL MACHINING CENTER

A Perfect Combination of High Speed and High Precision Machining

- X, Y, Z-axis travel: 1800 x 1500 x 1300 mm
- Box ways on three axes are excellent for heavy cutting with maximum stability.
- X, Y, Z-axis are all designed with twin drive system.
- 3,500 rpm gear-drive spindle.
- Floating type rotary table.
- Semi-floating type column / saddle feeds.
- Linear scales on three axes (standard).

Massive Structure Design

With the unique structure design, the Dah Lih Mch-1250 Horizontal Machining Center presents extraordinary rigidity, stability and dampening capability in heavy cutting operations.



Semi-floating Type Feed on Column and Saddle

» The column and saddle feeds are designed as air-assisted semi-floating type for dramatically lowering friction during movement, to make movement more smoothly.

» No stick-slip problem. Also, effectively reduces friction that occurs on slideways coated with Turcite-B.

Traveling column

» The column is a double – wall construction, which combined with large span of box ways to enhance its unique stability during cutting.

Box Ways on Three Axes

» Box ways in X, Y, Z-axis provide a firm support for the structure while reducing vibration to a minimum.

Pretensioned Ball Screws

» The precision ball screws are pretensioned to minimize thermal deformation, so as to ensure high positioning accuracy.

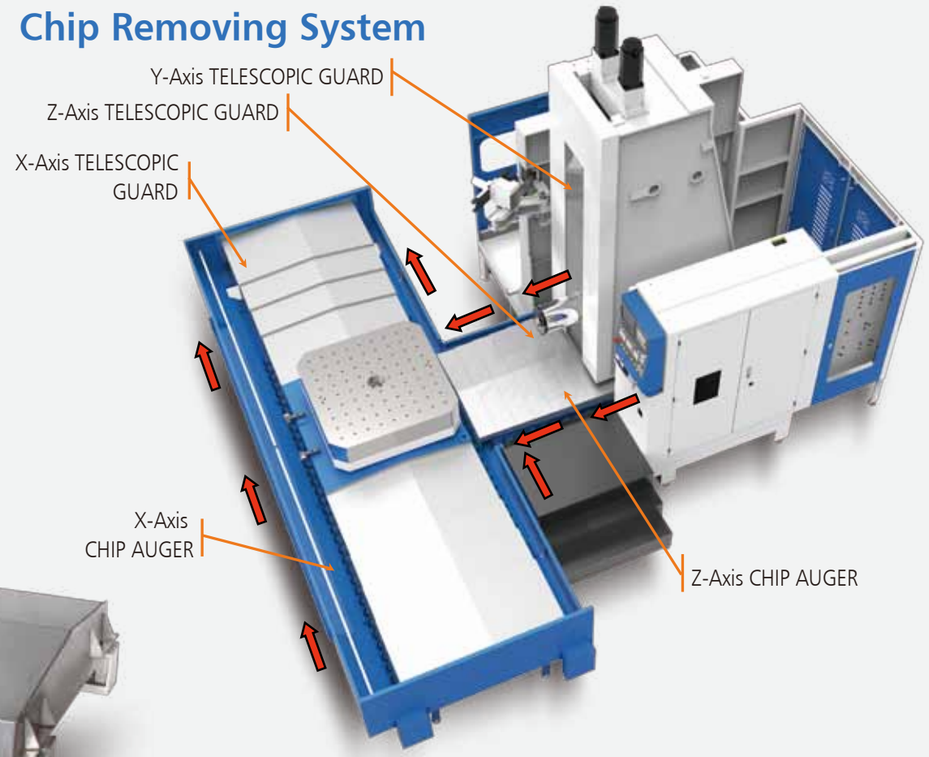
Three Axes Linear Scales

» The X, Y, Z-axis are all equipped with linear scales, providing close –loop feedback control. With the use of the linear scales, high positioning accuracy on 3 axes is guaranteed.

Minimum Thermal Deformation

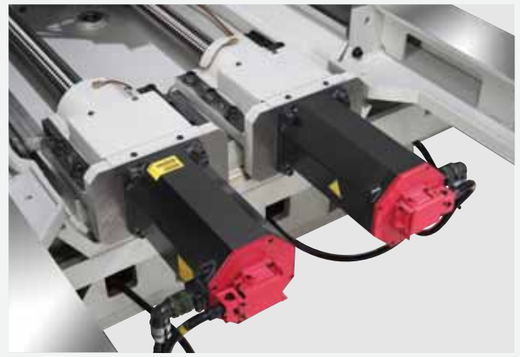
» The symmetric design of the machine structure eliminates thermal deformation due to temperature growth.

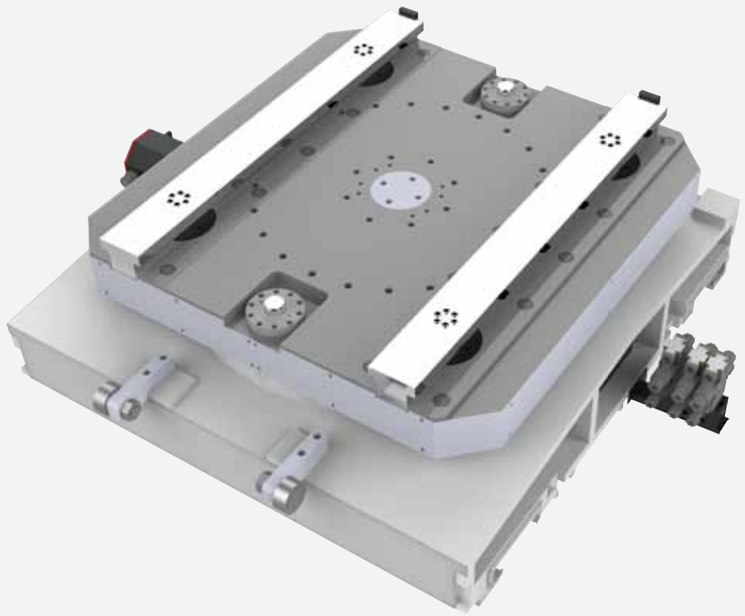
Chip Removing System



Twin drive system on X, Y, Z-axis

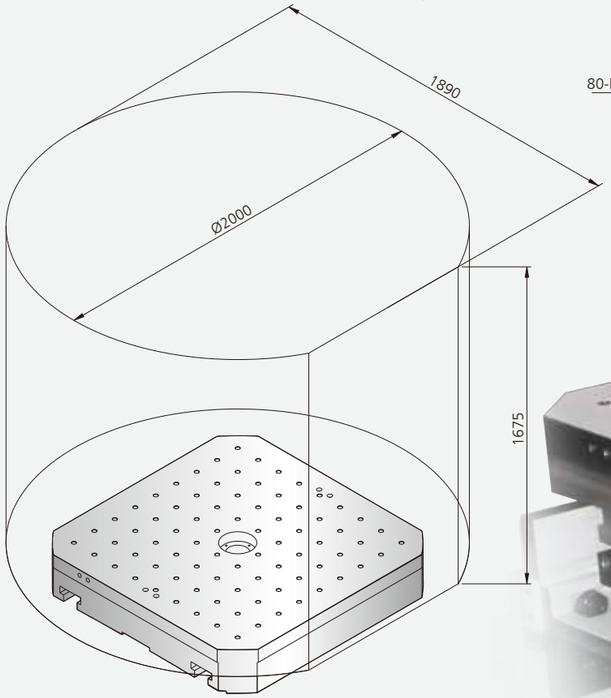
» X, Y, Z-axis employ two servo motors to drive two ball screws, to not only increase servo control inertia but also ensure moving stability and positioning accuracy on each axis.

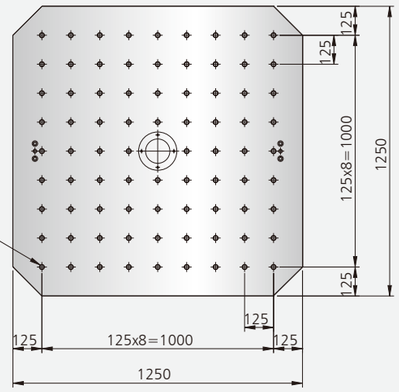




Accurate Pallet Positioning (B-axis)

» The pallet rests on 20 precision roller with two locational pins clamping is by 4 hydraulic cylinders to provide excellent pallet surface accuracy.

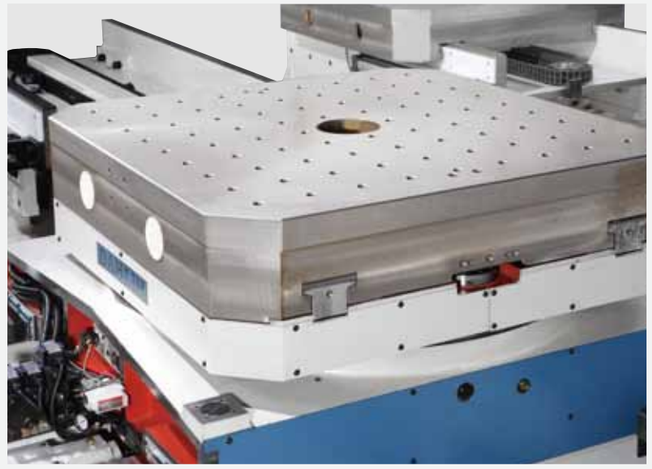




Automatic Pallet Changer

» The pallet changer employs a motor to drive chain for pushing and pulling pallets. The pallet is a fixed type and a platform can be used together for added convenience in workpiece loading and unloading.

Pallet Changer



SERVO CHANGE

Rotary Table (B-axis)

» Table rotation is driven by a servo motor and three – piece coupling is also applied to achieve high indexing accuracy.

» Direct loading design increases loading capacity.

Table Indexing Accuracy

» Standard indexing unit is 1°.

» 0.001° continuous indexing is optional.

Gearbox Driven Spindle

3,500 RPM Gear driven Spindle

» The spindle is supported by Ø120mm NN type double-row ball bearing with gear drive, and provides 3-step speed change. It produces great torque output of 132.7 kgf-m at 135rpm, making the machine suitable for heavy cutting.

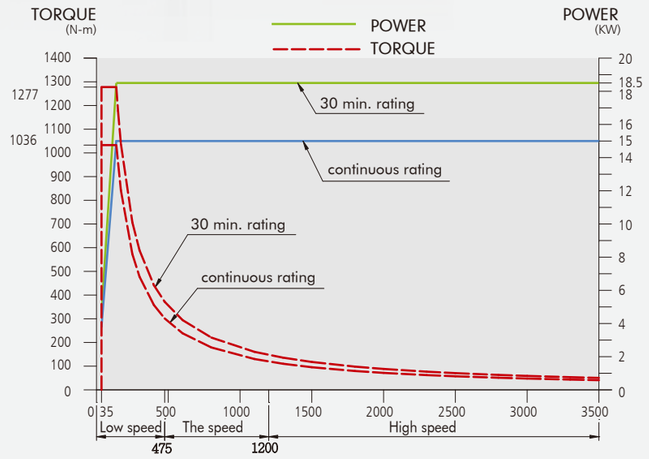
» The spindle and gears are forced cooling to reduce thermal growth while ensuring accuracy.

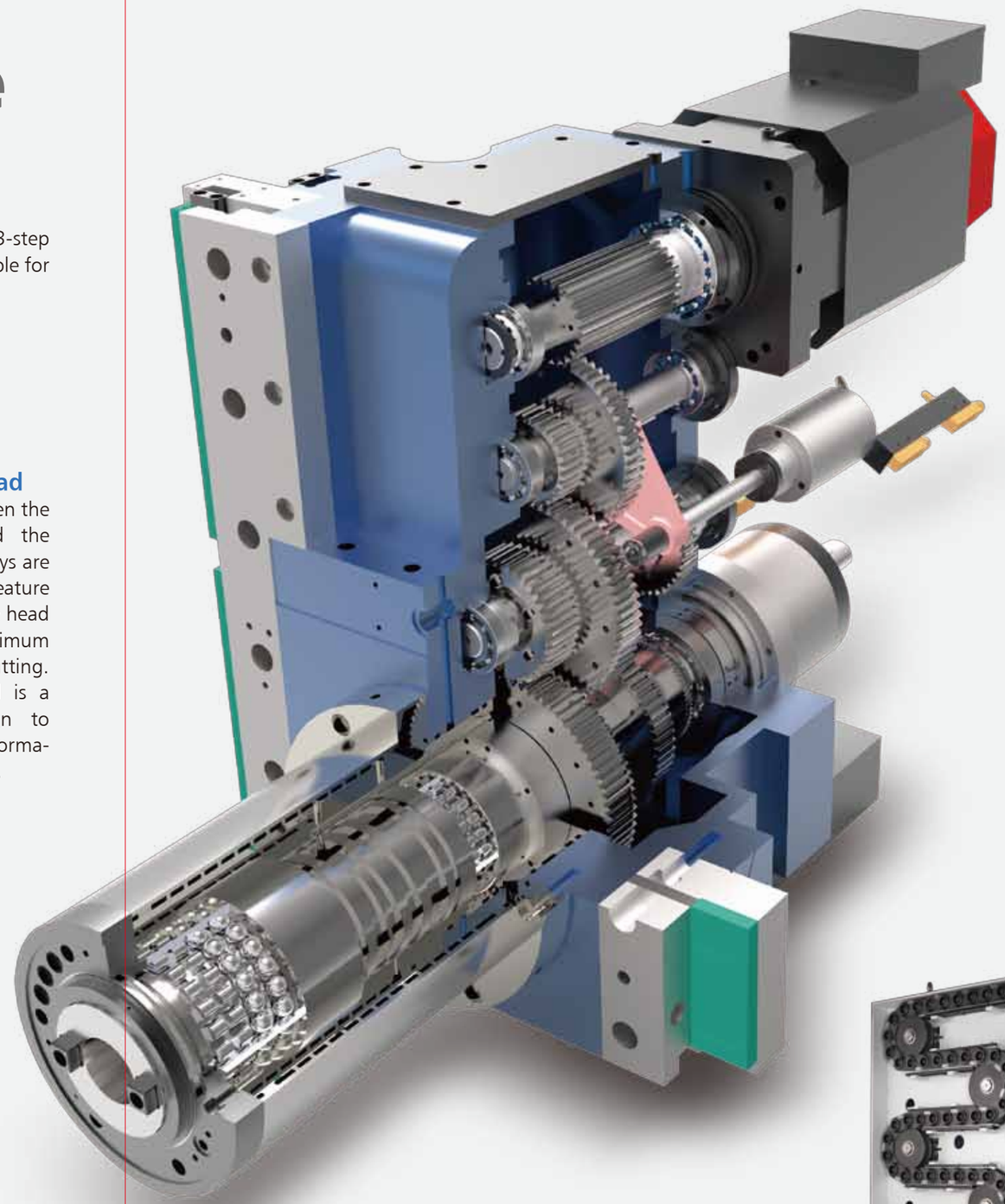
Rigid Spindle Head

» The contact between the spindle head and the column slidway ways are 6 surfaces. This feature enables the spindle head to maintain maximum stability in heavy cutting.

» The spindle head is a symmetrical design to reduce thermal deformation to a minimum.

Spindle Speed / Torque Output Diagram





Chain – type Machine

60 Tools Standard / 90/120 tools Optional

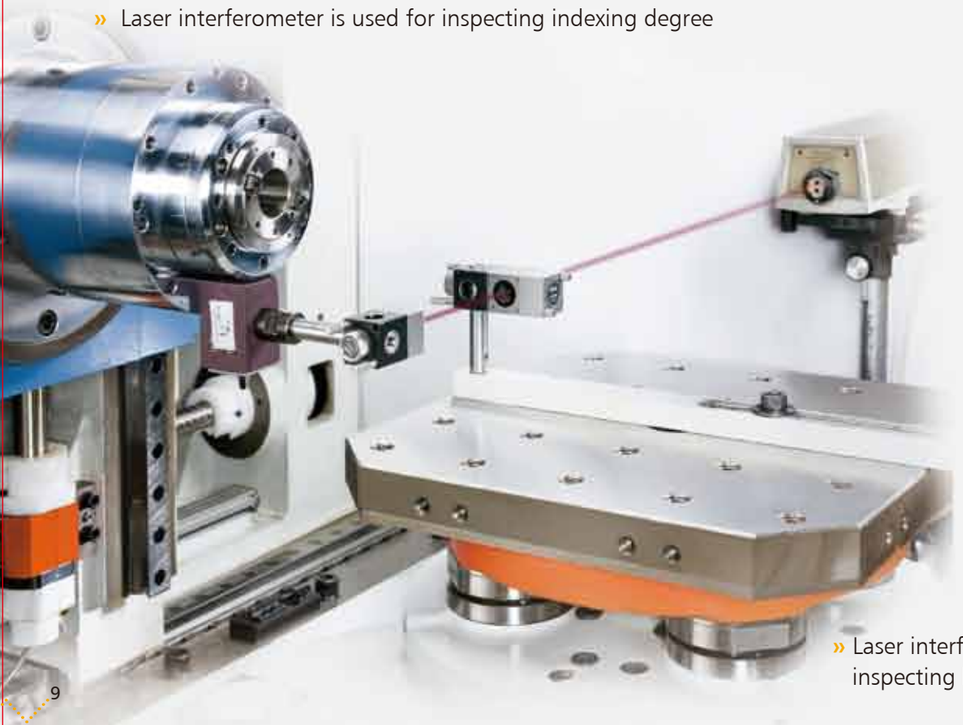
» The magazine is driven by a hydraulic indexing motor for fast rotation and high positioning accuracy.

» A waiting position of the magazine tool pot allows pre-selection of the next tool to save time.

» The tool magazine is separately mounted from the machining area to prevent contamination from chip or coolant.

Ultimate Accuracy Through Rigorous Inspection

» Laser interferometer is used for inspecting indexing degree



» Laser interferometer is used for inspecting linear position accuracy

SPECIFICATIONS, ACCESSORIES AND DIMENSIONS

SPECIFICATIONS

MODEL	MCH-1250
TABLE	
Pallet dimensions	1250 x 1250 mm
Min. indexing angle	5°
Dist. From table to floor	1300 mm
Max. table load	4000 kgw
TRAVEL	
X-axis travel	1800 mm
Y-axis travel	1500 mm
Z-axis travel	1300 mm
Dist. from spindle nose to table surface	350 ～ 1650 mm
Dist. from spindle center to table surface	75 ～ 1575 mm
SPINDLE	
Spindle nose taper	N.T. 50
Spindle speed	3500 r.p.m
Spindle speed range	3-step
FEED	
X, Y, Z-axis cutting feed rates	1～10000 mm/min
X, Y, Z-axis rapid traverse	15 m/min
Min. input increment	0.001 mm
ATC (Automacic Tool Changer)	
Tool storage capacity	60 (90/120) tools
Tool shank type	BT50
Max. tool diameter x length	Ø110 × 500 mm
Max. tool weight	20 kgw
Max. tool dia. (without adjacent tool)	Ø245 mm
Tool selection	Random
MOTORS	
Spindle motor (30 min. / cont.)	18.5 kw (25 hp) / 15 kw (20 hp)
X-axis servo motor	3 kw + 3kw
Y-axis servo motor	3 kw + 3kw
Z-axis servo motor	3 kw + 3kw
INSTALLATION REQUIREMENT	
Space occupied	10600 × 6700 × 4575 mm
Machine weight	40,000 kg

Specifications are subject to change without prior notice.

» STANDARD

1. Spindle cooling device
2. Heat exchange
3. Automatic Pallet Change
4. Removable type manual pulse generator
5. Spiral type chip conveyors
6. Automatic power cut-off device
7. Call light
8. Work light
9. Tool box
10. Flat type chip conveyor
11. Linear scales on X.Y.Z axes

» OPTIONS

1. ATC tool storage：90 / 120 tools
2. Coolant through spindle device
3. Automatic tool length measuring device
4. Automatic centering device
5. 0.001° continuous indexing (B-axis)

MACHINE DIMENSIONS